

Abstract ID : 690

Title : Characterizing and Interpreting Finback Whale, *Balaenoptera physalus*, Surface Behavior

Category : Behavior

Student : Not Applicable

Preferred Format : Either Oral or Poster Presentation

Abstract : Analyzing Blow/Dive is difficult. The Bay of Fundy water is cold and turbid. Identifying differences requires image capture of rare events, yet common event data sets large enough to analyze statistically. Here, a protocol is presented, used and results reported. Arguments are made that surface behavior reflects energy status of both the food source and of the whales, which affects types and levels of social interaction. The common events were swimming speed, the blow/dive (a ratio of non-terminal dive with dorsal fin showing (NTF) to non-terminal dive showing no dorsal fin (NTNF) to terminal dive), and length of time on the surface per blow/dive. Sequential digital photographs were taken using an Olympus 2100 Ultra Zoom. Images, times were quantified using Adobe Elements II and summarized then analyzed statistically. Early summer 2002, Fin Whales in moderate condition, "Krill Feeding" swam slowly and spent statistically significantly less time on the surface per blow, then those "Fish Feeding". About 30% of their dives were Terminal Dives. Fall 2002, a different set of whales, in poor condition, "Fish Feeding", swam faster, spent longer on the surface, however, like the "Krill Feeders", had an equal proportion of NTF to NTNF. They expended more energy, thus increased Oxygen intake, therefore percent terminal dives decreased. When startled by a Humpback formed three abreast, outside left whale rolled left, outside right rolled right and the one in the middle stood on its head, tail at right angles to the body.....a defensive maneuver? Fall 2001, in excellent condition and "Socializing" the whales swam faster still, chased each other, ending up ventral surface to ventral surface, on one occasion. The proportion of NTF increased to 70%. The average surface time matched the "Krill Feeders". They expend more energy, percent terminal dives decreases, "Fish Feeding" and "Socializing" give similar percentages.